

EXHIBIT 1

FILED UNDER SEAL

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1 TO ALL PARTIES AND THEIR ATTORNEYS OF RECORD:

2 PLEASE TAKE NOTICE that, pursuant to Federal Rule of Civil Procedure 30(b)(6),
3 Defendant Sonos, Inc. (“Sonos”) will take the deposition upon oral examination of Plaintiff
4 Google LLC (“Google”). The deposition will commence on February 3, 2022, at 9:00 a.m., at the
5 offices of Lee Sullivan Shea & Smith LLP, located at 656 W Randolph Street, Floor 5W,
6 Chicago, Illinois 60661, or at another date, time, and/or location agreed upon by counsel.
7 Pursuant to Rule 30(b)(6), Google shall designate one or more of its officers, directors, managing
8 agents, or other persons to testify on its behalf as to matters known or reasonably available to
9 Google concerning the subjects identified in Appendix A attached hereto.

10 PLEASE TAKE FURTHER NOTICE that the deposition will be taken upon oral
11 examination, under oath, before a certified court reporter and will continue from day to day until
12 completed. The deposition will be recorded by audio, video, and/or stenographic means. The
13 deposition may be taken using video conferencing technology or other agreed upon remote
14 means.

15 Sonos requests that Google identify in writing in advance of the deposition the person(s)
16 designated by Google to testify on its behalf, the job title of such person(s), and the topic(s) on
17 which each such person(s) will testify.

18 Dated: April 1, 2022

19 ORRICK HERRINGTON & SUTCLIFFE LLP

20 *and*

21 LEE SULLIVAN SHEA & SMITH LLP

22 By: /s/ Cole B. Richter

23 Cole B. Richter (admitted *pro hac*)

24 *Attorneys for Sonos, Inc.*

DEFINITIONS

The Deposition Topics in this Appendix are subject to and incorporate the following definitions:

1. "Defendant" or "Sonos" means Defendant Sonos, Inc.

2. "Plaintiff" or "Google," as well as "You," "Your," and "Yours," means Plaintiff Google LLC, including, without limitation, its agents, officers, employees, representatives, or any Person acting on their behalf, and also includes any corporate subsidiaries, parents, or other affiliated corporations.

3. “Cast-Enabled Media Player(s)” means Google’s Chromecast, Chromecast Ultra, Chromecast Audio, Chromecast with Google TV, Home Mini, Nest Mini, Home, Home Max, Home Hub, Nest Hub, Nest Hub Max, Nest Audio, and Nest Wifi Point media players individually and collectively.

4. “Cast-Enabled Display(s)” means Google’s Home Hub, Nest Hub, and Nest Hub Max media players individually and collectively.

5. “Pixel Device(s)” means Google’s “Pixel” branded smartphones, tablets, and other computer devices, including but not limited to, the Pixel, Pixel XL, Pixel 2, Pixel 2 XL, Pixel 3, Pixel 3 XL, Pixel 3a, Pixel 3a XL, Pixel 4, Pixel 4 XL, Pixel 4a, Pixel 4a (5G), Pixel 5, Pixel 5a (5G), Pixel 6, and Pixel 6 Pro phones, the Pixel Slate tablet, and the Pixelbook and Pixelbook Go laptops individually and collectively.

6. “Accused Cast-Enabled App(s)” means the YouTube app, YouTube Kids app, YouTube Music app, YouTube TV app, Google Play Music app, Google Podcasts app, and Spotify app accessible via either an app store or Chromecast-enabled site URL¹ (including youtube.com, music.youtube.com, tv.youtube.com, and spotify.com) individually and collectively.

7. “Accused Instrumentality” means any product, including variants and substantially similar products, identified pursuant to Patent L.R. 3-1(b) in Sonos’s October 21,

¹ See, e.g., <https://support.google.com/chromecast/answer/3265953?hl=en>.

1 2021 Disclosure of Asserted Claims and Infringement Contentions or any amendment to Sonos's
 2 Disclosure of Asserted Claims and Infringement Contentions.

3 8. "Accused Functionalities" means:

4 (i) Any and all functionalities that facilitate creating a "speaker group" using the Google
 5 Home app and playing media (e.g., music) from the speaker group, where the term "speaker
 6 group" has the meaning used by Google. *See, e.g.,*

7 <https://support.google.com/googlenest/answer/7174267>:

8 **Create and manage speaker groups**

9 Group any combination of Google Nest or Home speakers and displays and Chromecast devices together for
 10 synchronous music throughout the home. Your music and audio from Chromecast-enabled apps are instantly
 available to stream.

11 Compatible devices include Google Home, Google Nest Mini (2nd gen), Google Home Mini (1st gen), Google Home
 12 Max, Google Nest Audio, and Google Nest displays, Google Nest Wifi point, Chromecast with Google TV,
 Chromecast, Chromecast Ultra, Chromecast Audio, and devices with Chromecast built-in.

13 Note: This feature is not supported on Chromecast (1st gen).

14 [Android](#) [iPhone & iPad](#)

15 **Step 1. Create and manage speaker groups**

16 **Create an audio group**

17 1. Make sure your mobile device or tablet is [connected to the same Wi-Fi or linked to the same](#)
 account as your Chromecast, or speaker or display.

18 2. Open the Google Home app .

19 3. At the top left, tap Add + > Create speaker group.

20 4. Tap each device you want to add to the group. A check will appear next to each device you
 select.

21 5. Tap Next > enter a name for your group > Save.

22 (ii) Any and all functionalities that facilitate using an Accused Cast-Enabled App on a
 23 computer device to transfer the playing of media (a) from the computer device to one or more
 24 Cast-Enabled Media Players and (b) from the one or more Cast-Enabled Media Players to the
 25 computer device, including but not limited to, any and all functionalities that facilitate the feature

1 Google refers to as “Casting.” *See, e.g.*, <https://support.google.com/googlenest/answer/7181830>:

2

3 **Step 1. Cast from Chromecast-enabled apps to speaker or**
display

4

5 1. Make sure your mobile device or tablet is **connected to the same Wi-Fi network or linked to the same**
account as your speaker or display.

6 2. Open a Chromecast-enabled app.

7 3. Tap the Cast icon .

8 4. Tap the speaker or display you'd like to cast to.

9 5. When you're connected, the Cast icon will turn from light to dark gray, and will let you know you're connected.

6. You can now cast audio and video to your speaker or display from your device.

7. To stop casting, at the top of your device, tap the Cast icon . In the box that appears, tap **Stop Casting**.

10 (iii) Any and all functionalities that facilitate transferring the playing of media (a) from a
11 Cast-Enabled Display to one or more other Cast-Enabled Media Players and (b) from the one or
12 more other Cast-Enabled Media Players to the Cast-Enabled Display, including but not limited
13 to, any and all functionalities that facilitate the feature Google refers to as “Stream Transfer.”

14 *See, e.g.*, <https://www.blog.google/products/google-nest/move-your-music-stream-transfer/>:

15 Stream transfer is a new feature that lets you easily move music, videos, podcasts and
16 more between compatible devices in your home using your voice, the Google Home app
or the touchscreen on your Nest smart display.

17 Here's how you can give it a try:

18 * * *

19 • **Move YouTube videos between your Nest smart display and Chromecast-enabled**

20 **TV:** Browse for your favorite YouTube videos on Nest Hub Max, and tap the cast
control on the screen to move it to your Chromecast-connected TV. Or, say “Hey
Google, play it on living room TV.”

21

22 • **Fill your home with music:** If you have more than one Google Home and Nest smart
speaker or display, you can set up a speaker group in the Home App. Transfer music
from a single speaker to the speaker group to fill your whole home with music.

23

24 *See, e.g.*, <https://support.google.com/googlenest/answer/9563059>:



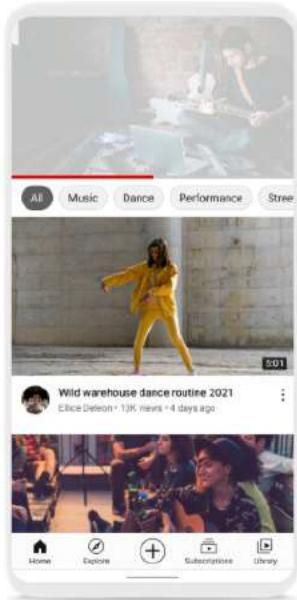
Google Nest Hub Max

- 1 1. On your Nest Hub Max's home screen, tap the active media card to bring up the media player.
- 2 2. At the bottom left corner of the screen, tap Devices to find the list of available devices and speaker groups.
- 3 3. Select the device(s) to which you want to move your media.
- 4 4. Deselect the device(s) from which you want to move your media.

5 (iv) Any and all functionalities that facilitate a computer device or Cast-Enabled Media
 6 Player receiving and playing media in connection with any of the Accused Cast-Enabled Apps,
 7 including but not limited to, any and all functionalities that facilitate the feature Google refers to
 8 as "Up Next" and the feature Google refers to as "Autoplay." *See, e.g.*,

9 <https://www.youtube.com/howyoutubeworks/product-features/recommendations/>:

10 The Up Next panel appears when you're watching a video. It suggests additional content
 11 based on whatever you're currently watching, alongside other videos that we think you
 12 may be interested in.



13 'Up next' videos on watch page

14
 15
 16
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 19
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 22
 23 *See, e.g.*, <https://support.google.com/youtube/answer/6327615>:

24 Autoplay videos

25 The Autoplay feature on YouTube makes it easier to decide what to watch next. When Autoplay is on, another
 26 related video will automatically play after a video ends.

27 9. "Cast-Related Revenue" means any revenue for Google that is related to,
 28 connected to, and/or promoted by the Accused Instrumentalities and/or Accused Cast-Enabled

1 Apps, including but not limited to, Google revenue from the sale of the Accused
2 Instrumentalities and/or Accused Cast-Enabled Apps; Google revenue associated with Google's
3 own subscription-based streaming media services (e.g., Google revenue associated with Google
4 Play Music, YouTube Music Premium, and/or YouTube TV subscriptions) provided via the
5 Accused Cast-Enabled Apps; Google revenue associated with third-party subscription-based
6 streaming media services (e.g., Google revenue share associated with Spotify Premium, Pandora
7 Plus, and/or Pandora Premium subscriptions purchased through the Google Play store) provided
8 via the Accused Cast-Enabled Apps; Google revenue associated with advertisements provided
9 via the Cast-Enabled Media Players and/or Accused Cast-Enabled Apps; Google revenue
10 associated with searches initiated via the Cast-Enabled Media Players and/or the Accused Cast-
11 Enabled Apps; Google revenue associated with in-app purchases made within the Accused Cast-
12 Enabled Apps; Google revenue associated with ecommerce transactions initiated via the Cast-
13 Enabled Media Players and/or Accused Cast-Enabled Apps; any Google revenue associated with
14 consumer data collected via the Cast-Enabled Media Players, Accused Cast-Enabled Apps,
15 and/or servers or cloud-based infrastructure identified by Sonos as Accused Instrumentalities
16 (e.g., Google revenue associated with the sale of such consumer data and/or Google revenue
17 associated with advertisements that target consumers based at least in part on such consumer
18 data); and any Google revenue associated with the Accused Cast-Enabled App's use of the
19 Google Cloud Platform (e.g., revenue associated with hosting the Accused Cast-Enabled Apps
20 and/or related streaming media services and functionality, revenue associated with storing media
21 associated with streaming media services provided via the Accused Cast-Enabled Apps, and/or
22 revenue associated with storing user profiles associated with the Accused Cast-Enabled Apps).

23 10. The “615 Patent” means United States Patent No. 9,967,615, dated May 8, 2018
24 and titled “Networked Music Playback.”

25 11. The “966 Patent” means United States Patent No. 10,469,966, dated November
26 5, 2019 and titled “Zone Scene Management.”

27 12. The “033 Patent” means United States Patent No. 10,779,033, dated September
28 15, 2020 and titled “Systems and Methods for Networked Music Playback.”

1 13. The “‘885 Patent” means United States Patent No. 10,848,885, dated November
 2 24, 2020 and titled “Zone Scene Management.”

3 14. “Asserted Patent(s)” means the ’615 Patent, the ’966 Patent, the ’033 Patent, and
 4 the ’885 Patent individually and collectively.

5 15. “Related Patent(s)” shall mean any patent or patent application individually and
 6 collectively that (i) claims priority to any of the Asserted Patents, (ii) is identified as priority for
 7 any of the Asserted Patents, or (iii) claims priority to any application which any of the Asserted
 8 Patents claims priority. “Related Patent” includes, but is not limited to, all continuations or
 9 continuations-in-part, provisionals, divisionals, and reissues of any of the Asserted Patents.

10 16. The term “Prior Art” shall refer to all publications, patents, physical devices,
 11 prototypes, source code, products, manufactures, uses, sales, offers for sale, imports or other
 12 activities concerning the subject matter of the Asserted Patents and existing on or occurring at a
 13 date such as to be relevant under any subdivision of 35 U.S.C. §§ 102 or 103.

14 17. The term “Patent Laws” shall refer to Title 35 of the United States Code.

15 18. The term “infringe” or any variation thereof, including “infringing,”
 16 “infringement” and “infringer,” shall refer to the commission of any act constituting
 17 infringement under the Patent Laws, including but not limited to 35 U.S.C. § 271.

18 19. The term “instrumentality” shall mean any process, machine, manufacture or
 19 composition of matter, or improvement thereof, within the meaning of the Patent Laws,
 20 including 35 U.S.C. § 101.

21 20. “Communication(s)” shall mean, including its usual and customary meaning, any
 22 transmission, conveyance or exchange of a word, statement, fact, thing, idea, document,
 23 instruction, information, demand or question by any medium, whether by written, oral or other
 24 means, including but not limited to, electronic Communications and electronic mail.

25 21. “Document(s)” shall have the broadest meaning ascribed to it by Federal Rule
 26 of Civil Procedure 34 and Federal Rule of Evidence 1001, and shall include within its meaning
 27 any and all papers, videotapes or video recordings, photographs, films, recordings, memoranda,
 28 books, records, accounts, letters, telegrams, correspondence, notes of meetings, notes of

1 conversations, notes of telephone calls, inter-office memoranda or written Communications
 2 of any nature, recordings of conversations either in writing or by means of any mechanical or
 3 electrical recording device, notes, papers, reports, analyses, invoices, canceled checks or check
 4 stubs, receipts, minutes of meetings, time sheets, diaries, desk calendars, ledgers, schedules,
 5 licenses, financial statements, telephone bills, logs and any differing versions of the foregoing
 6 whether denominated formal, informal or otherwise, as well as copies of the foregoing
 7 which differ in any way, including handwritten notations or other written or printed matter
 8 of any nature, from the original. The foregoing specifically includes the information stored in
 9 any form, including electronic form, on a computer or in a computer database or otherwise,
 10 including electronic mail. Moreover, the term "document" shall also include all "technical
 11 documents," such as source code, specifications, schematics, flowcharts, artwork, drawing,
 12 pictures, pictorial representations, formulas, troubleshooting guides, service bulletins, technical
 13 bulletins, production specification sheets, white papers, operator manuals, operation manuals and
 14 instruction manuals.

15 22. "Thing(s)" refers to any physical specimen or tangible item, including research
 16 and development models, samples, prototypes, and the like.

17 23. "Person(s)" refers to all natural persons and all types and kinds of business or
 18 other entities, including but not limited to, corporations, limited liability companies, partnerships,
 19 joint ventures, associations, sole proprietorships, government bodies and government agencies.
 20 Any reference to an individual person, either singularly or as part of a defined group, includes
 21 that person's employees, agents, legal and non-legal representatives, heirs, successors, assigns
 22 and any other person or entity acting on the behalf of such individual person. Any reference to a
 23 corporation or any other entity also refers to and includes any and all parents, subsidiaries,
 24 predecessors, successors, affiliates, partners, joint ventures, agents, employees, representatives,
 25 accountants, investment bankers, consultants or attorneys acting on behalf of the corporation or
 26 other entity. The masculine includes the feminine and vice versa; the singular includes the plural
 27 and vice versa.

28 24. "Entity" or "Entities" means, including without limitation, corporation, company

1 firm, partnership, joint venture, association, governmental body or agency, or persons other than
2 a natural person.

3 25. The terms “relate to,” “reflecting,” “relating to,” or “concerning” or any variations
4 thereof, shall mean relating to, referring to, concerning, mentioning, reflecting, regarding,
5 pertaining to, evidencing, involving, describing, discussing, commenting on, embodying,
6 responding to, supporting, contradicting, or constituting (in whole or in part), or are between (as
7 in the context of Communications), as the context makes appropriate.

8 26. “And” and “or” shall be construed either disjunctively or conjunctively as
9 necessary to bring within the scope of each Deposition Topic all information that might otherwise
10 be construed outside the scope.

11 27. “Any” shall include “all” and “All” shall include “any.”

12 28. The term “including” shall mean including without limitation.

13 29. The use of the singular form of any word includes the plural and vice versa.

14 30. The use of any tense of any word includes all other tenses.

15 31. Definitions or usages of words or phrases in these Deposition Topics are not
16 intended to be, and shall not be, construed as admissions as to the meaning of words or phrases at
17 issue in the action, and shall have no binding effect on Sonos in this or in any other proceeding.

18 32. All Deposition Topics are for discovery purposes only and are not to be
19 construed as limiting or reflecting Sonos’s positions in this case.

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DEPOSITION TOPICS

TOPIC NO. 1

The design and operation of the Accused Functionalities, including:

(i) the design and operation of the aforementioned “speaker group” Accused Functionality² and source code that facilitates the same;

(ii) the design and operation of the aforementioned “Casting” Accused Functionality³ relating to, and source code that facilitates the same for, each of: (a) the YouTube app, (b) the YouTube Kids app, (c) the YouTube Music app, (d) the YouTube TV app, (e) the Google Play Music app, (f) the Google Podcasts app, and (g) the Spotify app;

(iii) the design and operation of the aforementioned “Stream Transfer” Accused Functionality⁴ relating to, and source code that facilitates the same for, each of: (a) the YouTube app, (b) the YouTube Music app, (c) the Google Play Music app, (d) the Google Podcasts app, and (e) the Spotify app;

(iv) the design and operation of a Cast-Enabled Media Player receiving and playing a sequence of media items (e.g., songs, videos, podcast episodes, etc.), individually and collectively with one or more other Cast-Enabled Media Players, in connection with, and source code that facilitates the same for, each of: (a) the YouTube media service, (b) the YouTube Kids media service, (c) the YouTube Music media service, (d) the YouTube TV media service, (e) the Google Play Music media service, (f) the Google Podcasts media service, and (g) the Spotify media service;

(v) the design and operation of a computer device, such as a Pixel device, receiving and playing a sequence of media items (e.g., songs, videos, podcast episodes, etc.) in connection with, and source code that facilitates the same for, each of: (a) the YouTube media service, (b) the YouTube Kids media service, (c) the YouTube Music media service, (d) the YouTube TV media service, (e) the Google Play Music media service, (f) the Google Podcasts media service,

² See supra Definitions at ¶ 8(1).

³ See *supra* Definitions at ¶ 8(ii).

⁴ See *supra* Definitions at ¶ 8(iii).

1 and (g) the Spotify media service;

2 (vi) the design and operation of the aforementioned “Up Next” Accused Functionality⁵
 3 relating to, and source code that facilitates the same for, each of: (a) the YouTube app, (b) the
 4 YouTube Kids app, (c) the YouTube Music app, (d) the YouTube TV app, (e) the Google Play
 5 Music app, and (f) the Google Podcasts app; and

6 (vii) the design and operation of the aforementioned “Autoplay” Accused Functionality⁶
 7 relating to, and source code that facilitates the same for, each of: (a) the YouTube app, (b) the
 8 YouTube Kids app, (c) the YouTube Music app, (d) the YouTube TV app, (e) the Google Play
 9 Music app, and (f) the Google Podcasts app.

10 **TOPIC NO. 2**

11 The sales, prices, costs (e.g., fixed and variable costs), revenues (e.g., all Cast-Related
 12 Revenues), downloads, installs, and profits (e.g., gross, operating, incremental, and net)
 13 associated with each Accused Instrumentality and Accused Cast-Enabled App from May 2018 to
 14 present.

15 **TOPIC NO. 3**

16 Google’s plans, strategies, projections, and forecasts for the sale and marketing of each
 17 Accused Instrumentality, Accused Cast-Enabled App, and Accused Functionality, including
 18 analyses relating to lifetime values, unit sales, unit downloads, unit installs, revenues (e.g., all
 19 Cast-Related Revenues), costs, profits, pricing, price negotiations, marketing strategy,
 20 competition, competitive analysis, economic and technical advantages, market segments, market
 21 share, market size, and customer base.

22 **TOPIC NO. 4**

23 Customer use, feedback, demand, surveys, comments, comparisons, and/or complaints
 24 relating to the Accused Functionalities.

25
 26
 27 ⁵ See *supra* Definitions at ¶ 8(iv).

28 ⁶ See *supra* Definitions at ¶ 8(iv).

1 Dated: April 1, 2022

ORRICK HERRINGTON & SUTCLIFFE LLP
2 and
LEE SULLIVAN SHEA & SMITH LLP

3 By: /s/ Cole B. Richter

4 Cole B. Richter (admitted *pro hac*)

5 *Attorneys for Sonos, Inc.*

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11 Attorneys for GOOGLE LLC

12 UNITED STATES DISTRICT COURT

13 NORTHERN DISTRICT OF CALIFORNIA

14 SAN FRANCISCO DIVISION

15 GOOGLE LLC,

CASE NO. 3:20-cv-06754-WHA

16 Plaintiff,

**GOOGLE LLC'S OBJECTIONS AND
RESPONSES TO SONOS, INC.'S
JANUARY 5, 2022 RULE 30(b)(6)
NOTICE OF DEPOSITION OF
GOOGLE LLC**

17 vs.

18 SONOS, INC.,

19 Defendant.

1 Pursuant to Rules 26 and 30 of the Federal Rules of Civil Procedure, Plaintiff Google LLC
 2 (“Google”) hereby objects and responds as follows to Sonos, Inc.’s (“Sonos”) Rule 30(b)(6) Notice
 3 of Deposition of Google LLC (“Notice”) served on January 5, 2022. These formal objections and
 4 responses are supplemental to any communications already exchanged between the parties
 5 regarding the above-referenced notice. In addition, the objections and responses set forth in this
 6 document are based on Google’s knowledge, investigations, and analysis to date. As discovery
 7 proceeds, Google may become aware of additional facts or evidence and its analysis of the case may
 8 change. Google reserves the right to supplement and amend these objections and responses if and
 9 when additional information becomes available.

10 **GENERAL OBJECTIONS**

11 Google makes the following General Objections to each and every definition, instruction,
 12 and topic in Sonos’s Notice. Each of these objections is incorporated into the Specific Objections
 13 set forth below, whether or not separately set forth therein. By responding to any of the topics or
 14 failing to specifically refer to or specify any particular General Objection in response to a particular
 15 topic, Google does not waive any of these General Objections, nor does it admit or concede the
 16 appropriateness, relevance, materiality, or admissibility in evidence of any purported topic or any
 17 assumptions contained therein.

18 1. Google objects to each topic, and to the definitions, to the extent that they purport to
 19 impose any obligations upon Google beyond the Federal Rules of Civil Procedure, the Local Rules
 20 of the United States District Court for the Northern District of California, and the Court’s orders
 21 regarding limits on discovery in this litigation, or any other applicable rule or law.

22 2. Google objects to each and every topic to the extent that it fails to comply with
 23 Federal Rule of Civil Procedure 30(b)(6), which requires a party seeking testimony from an
 24 organization to “describe with reasonable particularity the matters for examination.” *See also*
 25 Supplemental Order to Order Setting Initial Case Management Conference in Civil Cases Before
 26 Judge Alsup ¶ 32(a) (topics must be “described with ‘reasonable particularity’”); *Astellas Pharma,*
 27 *Inc. v. Impax Labs., Inc.*, No. C 08-3466 JW (RS), 2009 U.S. Dist. LEXIS 75061, at *9 (N.D. Cal.
 28 Aug. 4, 2009) (FRCP Rule 30(b)(6) topics must be “narrowly tailored”); *Adidas Am., Inc. v. TRB*

1 *Acquisitions Ltd. Liab. Co.*, 324 F.R.D. 389, 395 (D. Or. 2017) (for FRCP Rule 30(b)(6) “to
 2 effectively function, the requesting party must take care to designate, *with painstaking specificity*,
 3 the particular subject areas that are intended to be questioned, and that are relevant to the issues in
 4 dispute.”) (emphasis in original).

5 3. Google objects to each and every topic to the extent that it prematurely seeks
 6 disclosure of information before Google is required to disclose such information in accordance with
 7 any applicable law or rule, such as the Northern District of California Local Rules or any order in
 8 this action.

9 4. Google objects to each topic to the extent that it seeks information protected by the
 10 attorney-client privilege or the work product doctrine or that is otherwise privileged or protected
 11 from discovery.

12 5. Google objects to each topic to the extent that it seeks information that is not relevant
 13 to the subject matter of this action and is not proportional to the needs of the case.

14 6. Google objects to each and every topic to the extent that it is vague, ambiguous,
 15 unintelligible, overbroad, unduly burdensome, or seeks information that is not relevant to the subject
 16 matter of this action or not proportional to the needs of the case. Google notes that many of the
 17 topics in the Notice are so broad and general, and unbounded as to time period, that it would be
 18 practically impossible to educate any one person to testify on the topics at a granular level. Where
 19 Google has agreed to produce a witness to testify on a particular topic, the witness will be prepared
 20 to provide a reasonable level of detail on the topic. *See United States v. HVI Cat Canyon, Inc.*, 2016
 21 WL 11683593, at *9–11 (C.D. Cal. Oct. 26, 2016) (explaining that “[i]t is simply impractical to
 22 expect Rule 30(b)(6) witnesses to know the intimate details of everything” and holding that the
 23 broad scope of the topics in deposition notice “would make witness preparation a nearly impossible
 24 task”).

25 7. Google objects to each topic to the extent that it uses words in a manner inconsistent
 26 with or unsupported by the plain language of the word. To the extent possible, Google and its
 27 representatives will apply a reasonable interpretation based on the plain meaning of the words used.

1 8. Google objects to each topic to the extent that it seeks information that does not
 2 already exist, that is in the possession of third parties, or that is not in Google's possession, custody,
 3 or control.

4 9. Google objects to each topic to the extent that it requires Google to provide
 5 information beyond what is available to Google at present from a reasonable search of its own files
 6 likely to contain relevant or responsive documents and from a reasonable inquiry of its present
 7 employees.

8 10. Google objects to each topic to the extent that it seeks information protected by
 9 privacy law and/or policy.

10 11. Google objects to each topic to the extent that it seeks information that Google is not
 11 permitted to disclose pursuant to confidentiality obligations or agreements with third parties.

12 12. Google objects to each and every topic to the extent that it calls for a legal conclusion
 13 or requires Google to render what would be considered an expert opinion.

14 13. Google objects to each topic to the extent that it would require Google to perform a
 15 technical analysis of any accused product or prior art.

16 14. Google objects to each topic to the extent that it seeks information that is already in
 17 Sonos's possession or available to Sonos from some other source that is more convenient, less
 18 burdensome, or less expensive, including information that is publicly available, uniquely within the
 19 control of Sonos, or equally available to both Google and Sonos.

20 15. Google objects to each and every topic to the extent that it is duplicative of other
 21 discovery that Sonos has sought, and Sonos has not articulated why the requested testimony is
 22 relevant or proportional to the needs of the case in light of the documents and source code Google
 23 has produced.

24 16. Google responds to these topics based upon its current understanding and reserves
 25 the right to supplement its responses if any additional information is identified at a later time and to
 26 make any additional objections that may become apparent. Google's investigation in this action is
 27 ongoing, and Google reserves the right to rely on and introduce information in addition to any
 28

1 information provided in response to this Notice at the trial of this matter or in other related
 2 proceedings.

3 17. Google's responses are not to be construed as an admission that any definition
 4 provided by Sonos is either factually correct or legally binding against Google, that any of the
 5 requested information exists, that any information is admissible, relevant or proportional to the
 6 needs of the case, or that any contention or assumption contained in the topic, whether implicit or
 7 explicit, is correct.

8 18. Google objects to each and every topic to the extent that it seeks information in a
 9 format, or at a level of detail, other than that which is ordinarily kept and maintained by Google in
 10 its regular course of business.

11 19. Google objects to each topic to the extent that it requests Google to provide "all"
 12 information about a particular subject on the grounds that such requests are overbroad, unduly
 13 burdensome, and not proportional to the needs of the case.

14 20. To the extent the deposition proceeds remotely, Google objects to using any non-
 15 Google videoconferencing service. Google is willing to present its witnesses using the Google Meet
 16 platform only.

17 21. Google objects to the definitions of "Plaintiff," "You," "Your," and "Yours" on the
 18 grounds that the definitions are overly broad, unduly burdensome, and vague, including but not
 19 limited to the extent that they include: any Google parent, subsidiary, division, or related company;
 20 any business entity controlled by or operated on behalf thereof; any predecessors thereof; and any
 21 and all agents, directors, owners, officers, attorneys, employees, representatives, subcontracts,
 22 and/or any person acting on its behalf.

23 22. Google objects to the definition of "Accused Cast-Enabled App(s)" on the grounds
 24 that the definition is overly broad, unduly burdensome, and vague, including but not limited to the
 25 extent that it includes: any Google Cast-enabled app other than the YouTube Music app, Google
 26 Play Music app, YouTube app, YouTube Kids app and YouTube TV app, and any third-party Cast-
 27 enabled app that allows a user to "cast" to an Accused Cast-Enabled Media Player (including but
 28 not limited to third-party apps outside of Google's control such as the Spotify app), and any Cast-

1 enabled software (e.g., firmware and/or Cast-enabled apps) executable on an Accused Cast-Enabled
2 Display that enables a user to “[m]ove media from one cast device to another,” either collectively
3 or individually. Google will respond with respect to the YouTube Music app, Google Play Music
4 app, YouTube app, YouTube Kids app and YouTube TV app.

5 23. Google objects to the definition of “Cast-Related Revenue” as overly broad,
6 burdensome, and not proportional to the needs of the case, including to the extent it (i) seeks
7 information regarding categories of revenue “connected to and/or promoted by” but not directly tied
8 to or resulting from the Accused Instrumentalities, (ii) seeks information that is not relevant to any
9 claim or defense of any party or to the subject matter of this action, including to the extent it seeks
10 information regarding non-accused products or instrumentalities such as “third-party subscription
11 based streaming media services,” (iii) seeks information that is not reasonably tied to a measure of
12 potential damages for alleged infringement of the accused products or instrumentalities, including
13 but not limited to the extent it seeks information regarding “Google revenue associated with third-
14 party subscription-based streaming media services,” “Google revenue associated with
15 advertisements,” “Google revenue associated with in-app purchases,” “Google revenue associated
16 with ecommerce transactions” and/or “Google revenue associated with consumer data,” and (iv) is
17 unlimited in time or geographic scope and may include information about products outside of the
18 United States.

19 24. Google incorporates by reference its General Objections in each of the specific
20 responses set forth below.

SPECIFIC OBJECTIONS

22 Subject to the foregoing General objections, Google objects and responds to Sonos's
23 deposition topics as follows:

24 | **TOPIC NO. 1:**

25 The design and operation of the Accused Functionalities, including:

26 (i) the design and operation of the aforementioned “speaker group” Accused Functionality
27 and source code that facilitates the same;

(ii) the design and operation of the aforementioned “Casting” Accused Functionality relating to, and source code that facilitates the same for, each of: (a) the YouTube app, (b) the YouTube Kids app, (c) the YouTube Music app, (d) the YouTube TV app, (e) the Google Play Music app, (f) the Google Podcasts app, and (g) the Spotify app;

(iii) the design and operation of the aforementioned “Stream Transfer” Accused Functionality relating to, and source code that facilitates the same for, each of: (a) the YouTube app, (b) the YouTube Music app, (c) the Google Play Music app, (d) the Google Podcasts app, and (e) the Spotify app;

9 (iv) the design and operation of a Cast-Enabled Media Player receiving and playing a
10 sequence of media items (e.g., songs, videos, podcast episodes, etc.), individually and collectively
11 with one or more other Cast-Enabled Media Players, in connection with, and source code that
12 facilitates the same for, each of: (a) the YouTube media service, (b) the YouTube Kids media
13 service, (c) the YouTube Music media service, (d) the YouTube TV media service, (e) the Google
14 Play Music media service, (f) the Google Podcasts media service, and (g) the Spotify media service;

15 (v) the design and operation of a computer device, such as a Pixel device, receiving and
16 playing a sequence of media items (e.g., songs, videos, podcast episodes, etc.) in connection with,
17 and source code that facilitates the same for, each of: (a) the YouTube media service, (b) the
18 YouTube Kids media service, (c) the YouTube Music media service, (d) the YouTube TV media
19 service, (e) the Google Play Music media service, (f) the Google Podcasts media service, and (g)
20 the Spotify media service;

21 (vi) the design and operation of the aforementioned “Up Next” Accused Functionality
22 relating to, and source code that facilitates the same for, each of: (a) the YouTube app, (b) the
23 YouTube Kids app, (c) the YouTube Music app, (d) the YouTube TV app, (e) the Google Play
24 Music app, and (f) the Google Podcasts app; and

25 (vii) the design and operation of the aforementioned “Autoplay” Accused Functionality
26 relating to, and source code that facilitates the same for, each of: (a) the YouTube app, (b) the
27 YouTube Kids app, (c) the YouTube Music app, (d) the YouTube TV app, (e) the Google Play
28 Music app, and (f) the Google Podcasts app.

1 **RESPONSE TO TOPIC NO. 1:**

2 Google incorporates by reference its General Objections. Google objects to this topic as an
 3 improper attempt to circumvent the Court's rule restricting the parties to no more than ten topics.
 4 *See Supplemental Order to Order Setting Initial Case Management Conference in Civil Cases Before*
 5 *Judge William Alsup ¶ 32* ("a party may seek FRCP 30(b)(6) depositions from another party on up
 6 to a total of ten subject matters (for the entire case)"). As this topic contains at least seven subparts
 7 and thirty-eight sub-subparts, the topic actually addresses thirty-nine topics. Google further objects
 8 that this topic addresses third-party applications that are not within Google's control such as the
 9 Spotify app. Google also objects that this topic seeks testimony on unaccused products such as the
 10 Google Podcasts app.

11 Google objects that this topic fails to describe with reasonable particularity the matters for
 12 examination. *See Memory Integrity, LLC v. Intel Corp.*, 308 F.R.D. 656, 661 (D. Or. 2015) ("the
 13 requesting party must take care to designate, with *painstaking specificity*, the particular subject areas
 14 that are intended to be questioned") (emphasis in original) (internal marks and citations omitted).
 15 For example, it would be highly burdensome and not proportional to the needs of the case for Google
 16 to designate a witness or witnesses to testify about the design and operation of six different
 17 functionalities across seven different software products and 1,609 different hardware products
 18 without any temporal limitation. *Id.* (denying motion to compel Rule 30(b)(6) deposition on "broad"
 19 topics in a patent case) For the "speaker group"-related accused functionalities, Google is willing
 20 to provide information from November 5, 2019 to present. For the "casting"-related accused
 21 functionalities, Google is willing to provide information from May 8, 2018 to present.

22 Google also objects to this topic as overly broad, vague, and ambiguous because it does not
 23 define "design" and "operation." Google additionally objects to this topic on the ground that the
 24 information sought on this topic is duplicative of information sought by Sonos in Interrogatory Nos.
 25 3, 14, and 15 and Request for Production Nos. 3, 4, 13, 14, 15, 19, 20, and 29.

26 Subject to and without waiving its general and specific objections, Google is willing to
 27 provide a witness or witnesses who will be prepared to testify to a reasonable level of detail
 28

1 regarding the design and operation of the accused functionalities listed in (i)-(vii) above, as well as
 2 any source code that facilitates the same.

3 **TOPIC NO. 2:**

4 The sales, prices, costs (e.g., fixed and variable costs), revenues (e.g., all Cast-Related
 5 Revenues), downloads, installs, and profits (e.g., gross, operating, incremental, and net) associated
 6 with each Accused Instrumentality and Accused Cast-Enabled App from May 2018 to present.

7 **RESPONSE TO TOPIC NO. 2:**

8 Google incorporates by reference its General Objections, including specifically its objection
 9 to the definition of “Cast-Related Revenues.” Google objects to this topic because it is overly broad,
 10 vague, ambiguous, and does not describe with reasonable particularity the matters on which
 11 examination is requested, including as to the undefined terms and phrases “sales,” “prices,” “costs,”
 12 “revenues,” “downloads,” “installs,” and “profits.” Given the “breadth” of this topic, “adequately
 13 preparing would unduly strain any deponent’s abilities.” *Pres. Techs. LLC v. MindGeek USA, Inc.*,
 14 No. 217CV08906DOCJPR, 2020 WL 10965163, at *4 (C.D. Cal. Oct. 19, 2020).

15 Google further objects to this topic as irrelevant, unduly burdensome, and not proportional
 16 to the needs of the case, including to the extent this topic seeks testimony on matters that are entirely
 17 unrelated to Sonos’s infringement theories, the asserted patents, the technology at issue, and/or the
 18 claims and defenses of this case. Google specifically objects to Sonos’s definition of “cast-related
 19 revenue” as highly burdensome and not proportional to the needs of the case. Google also objects
 20 to this topic to the extent it is not geographically constrained. Google additionally objects to this
 21 topic on the ground that the information sought on this topic is duplicative of information sought by
 22 Sonos in Interrogatory Nos. 9, 10, and 11 and Request for Production Nos. 46, 47, 49, 50, 52, and
 23 53.

24 Subject to and without waiving its general and specific objections, Google is willing to
 25 provide a witness or witnesses who will be prepared to testify to a reasonable level of detail
 26 regarding the financial information it produced in this case at GOOG-SONOSNDCA-00055305.

27

28

1 **TOPIC NO. 3:**

2 Google's plans, strategies, projections, and forecasts for the sale and marketing of each
 3 Accused Instrumentality, Accused Cast-Enabled App, and Accused Functionality, including
 4 analyses relating to lifetime values, unit sales, unit downloads, unit installs, revenues (e.g., all Cast-
 5 Related Revenues), costs, profits, pricing, price negotiations, marketing strategy, competition,
 6 competitive analysis, economic and technical advantages, market segments, market share, market
 7 size, and customer base.

8 **RESPONSE TO TOPIC NO. 3:**

9 Google incorporates by reference its General Objections. Google objects to this topic
 10 because it is overly broad, vague, ambiguous, and does not describe with reasonable particularity
 11 the matters on which examination is requested, including as to the undefined terms and phrases
 12 "plans," "strategies," "projections," "forecasts," "sale," "marketing," "analyses," "lifetime values,"
 13 "unit sales," "unit downloads," "unit installs," "revenues," "costs," "profits," "pricing,"
 14 "negotiations," "strategy," "competition," "competitive analysis," "economic and technical
 15 advantages," "market segments," "market share," "market size," and "customer base." Given the
 16 "breadth" of this topic, "adequately preparing would unduly strain any deponent's abilities." *Pres.*
 17 *Techs. LLC v. MindGeek USA, Inc.*, No. 217CV08906DOCJPR, 2020 WL 10965163, at *4 (C.D.
 18 Cal. Oct. 19, 2020).

19 Google further objects to this topic as irrelevant, unduly burdensome, and not proportional
 20 to the needs of the case, including to the extent this topic seeks testimony on matters that are entirely
 21 unrelated to Sonos's infringement theories, the asserted patents, the technology at issue, and/or the
 22 claims and defenses of this case. Google also objects to this topic to the extent it is not temporally
 23 or geographically constrained. Google additionally objects to this topic on the ground that the
 24 information sought on this topic is duplicative of information sought by Sonos in Interrogatory No.
 25 17 and Request for Production Nos. 6, 25, 26, 27, 28, and 45.

26 Subject to and without waiving its general and specific objections, Google is willing to
 27 provide a witness or witnesses who will be prepared to testify to a reasonable level of detail
 28 regarding (1) Google's strategies for the sale and marketing of the accused functionalities, the

1 accused software apps and the accused hardware products; (2) the competitive relationship between
 2 the parties to the extent there is one; (3) the financial information Google produced in this case at
 3 GOOG-SONOSNDCA-00055305; and (4) metrics information regarding installs of the accused
 4 software apps and usage of the accused functionality that Google anticipates producing in the
 5 coming weeks.

6 **TOPIC NO. 4:**

7 Customer use, feedback, demand, surveys, comments, comparisons, and/or complaints
 8 relating to the Accused Functionalities.

9 **RESPONSE TO TOPIC NO. 4:**

10 Google incorporates by reference its General Objections. Google objects to this topic
 11 because it is overly broad, vague, ambiguous, and does not describe with reasonable particularity
 12 the matters on which examination is requested, including as to the undefined terms and phrases
 13 “[c]ustomer use,” “feedback,” “demand,” “surveys,” “comments,” and “complaints.” Given the
 14 “breadth” of this topic, “adequately preparing would unduly strain any deponent’s abilities.” *Pres.*
 15 *Techs. LLC v. MindGeek USA, Inc.*, No. 217CV08906DOCJPR, 2020 WL 10965163, at *4 (C.D.
 16 Cal. Oct. 19, 2020).

17 Google further objects to this topic as irrelevant, unduly burdensome, and not proportional
 18 to the needs of the case, including to the extent this topic seeks testimony on matters that are entirely
 19 unrelated to Sonos’s infringement theories, the asserted patents, the technology at issue, and/or the
 20 claims and defenses of this case. Google also objects to this topic to the extent it is not temporally
 21 or geographically constrained. Google additionally objects to this topic on the ground that the
 22 information sought on this topic is duplicative of information sought by Sonos in Interrogatory No.
 23 4 and Request for Production No. 24.

24 Subject to and without waiving its general and specific objections, Google is willing to
 25 provide a witness or witnesses who will be prepared to testify to a reasonable level of detail
 26 regarding (1) customer feedback, including comments and/or complaints regarding the accused
 27 functionalities to the extent such feedback exists and is reasonably within Google’s possession,

1 custody and control, and (2) metrics information regarding usage of the accused functionality that
2 Google anticipates producing in the coming weeks.

3

4 DATED: February 3, 2022

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UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
SAN FRANCISCO DIVISION

14 GOOGLE LLC,

Plaintiff

15 v.

16 SONOS, INC.,

Defendant.

17 Case No. 3:20-cv-06754-WHA

18

GOOGLE LLC’S THIRD SUPPLEMENTAL OBJECTIONS AND RESPONSES TO
PLAINTIFF SONOS, INC.’S FIRST SET OF FACT DISCOVERY INTERROGATORIES
(NOS. 13, 14, 15)

19 Pursuant to Rule 33 of the Federal Rules of Civil Procedure, Defendant Google LLC
20 (“Google”) hereby objects and responds to Plaintiff Sonos, Inc.’s (“Sonos”) First Set of Fact
21 Discovery Interrogatories to Defendant (“Interrogatories”). Google responds to these
22 Interrogatories based on its current understanding and the information reasonably available to
23 Google at the present time. Google reserves the right to supplement these responses if and when
24 additional information becomes available.

25

26

HIGHLY CONFIDENTIAL – ATTORNEYS’ EYES ONLY**GENERAL OBJECTIONS AND RESPONSES**

1
2. These responses are made only for the purposes of discovery in this action. Each
3 response is subject to all appropriate objections as to competence, relevance, materiality, and any
4 and all other objections and grounds that would require the exclusion of any information,
5 documents, or statements contained in the responses if such information, documents, or statements
6 were offered in court. Google expressly reserves all such objections and may interpose them at the
7 time of trial or at any other time.

8. Google reserves all objections as to the admissibility at trial of any information or
9 documents identified in its responses to these Interrogatories. By identifying any document or
10 supplying any information, Google does not admit that such information or document is relevant to
11 or admissible in this litigation. Google reserves the right to object to further inquiry with respect to
12 any subject matter.

13. Google objects to the interrogatories, and to the definitions, to the extent that they
14 purport to impose any obligations upon Google beyond the Federal Rules of Civil Procedure and
15 the Local Rules of the United States District Court for the Northern District of California.

16. Google objects to the definition of “Defendant,” “Google,” “You,” or “Your” on the
17 grounds that the definitions are overly broad, unduly burdensome, and vague, including but not
18 limited to the extent that they include: any Google parent, subsidiary, division, or related company;
19 any business entity controlled by or operated on behalf thereof; any predecessors thereof; and any
20 and all agents, directors, owners, officers, attorneys, employees, representatives, subcontracts,
21 and/or any person acting on its behalf.

22. Google objects to the definition of “Accused Cast-Enabled App(s)” on the grounds
23 that the definition is overly broad, unduly burdensome, and vague, including but not limited to the
24 extent that it includes: any Google Cast-enabled app other than the YouTube Music app, Google
25 Play Music app, YouTube app, Google Podcasts app, and YouTube TV app, and any third-party
26 Cast-enabled app that allows a user to “cast” to an Accused Cast-Enabled Media Player (including
27 but not limited to the Spotify app), and any Cast-enabled software (e.g., firmware and/or Cast-
28 enabled apps) executable on an Accused Cast-Enabled Display that enables a user to “[m]ove media

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1 from one cast device to another,” either collectively or individually. Google will respond with
2 respect to the YouTube Music app, Google Play Music app, YouTube app, Google Podcasts app,
3 and YouTube TV app.

4 6. Google objects to the definition of “Accused Google Product(s)” to the extent it
5 includes Sonos’s definition of the term “Accused Cast-Enabled App(s).”

6 7. Google objects to the definition of “Accused Google Server[s]” on the grounds that
7 the definition is overly broad, unduly burdensome, and vague, including but not limited to the extent
8 that it purports to include: any server that hosts at least one of the Accused Cast-Enabled App(s) for
9 download, any server that facilitates casting from Chromecast-enabled apps to Accused Cast-
10 Enabled Media Player(s), any server that facilitates moving media from one cast device to another,”
11 and any server that, in response to user input at any Accused Cast-Enabled App, facilitates delivering
12 media to an Accused Cast-Enabled Media Player (including but not limited to any Cloud Content
13 Delivery Network (CDN) server), either collectively or individually. Google will respond with
14 respect to the servers specifically accused in Sonos’s infringement contentions.

15 8. Google objects to the instructions regarding “identify,” “describe,” or “identity” in
16 the context of a person on the grounds that the instructions are overly broad, unduly burdensome,
17 and vague, including but not limited to the extent that they require inclusion of: the person’s present
18 or last known home address, business and e-mail addresses, and respective phone numbers; present
19 or last known place of employment and position; and his or her connection to the subject matter of
20 the interrogatory.

21 9. Google objects to the instructions to “identify,” “describe,” or specify the “identity”
22 in the context of a person who is a past or present director, officer, employee, agent, or representative
23 of Google on the grounds that the instructions are overly broad, unduly burdensome, and vague,
24 including but not limited to the extent that they require specification of: all positions or employments
25 held by that person with Google, and the dates between which each such position or employment
26 was held.

27 10. Google objects to the instructions to “identify,” “describe,” or specify the “identity”
28 in the context of an entity on the grounds that the instructions are overly broad, unduly burdensome,

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1 and vague, including but not limited to the extent that they require specification of: the entity’s place
2 of incorporation or other business organization; its principal places of business; its present or last
3 known mailing and physical address(es) and e-mail and website addresses; its present or last known
4 phone number; the type of entity or organization, its date and place of formation and any place(s) in
5 which it is registered to conduct business; its registered agent; and the identity of all individuals
6 employed by or acting for it at any time who have knowledge of the matter with respect to which
7 the entity is identified.

8 11. Google objects to the instructions to “identify,” “describe,” or specify the “identity”
9 in the context of a document on the grounds that the instructions are overly broad, unduly
10 burdensome, and vague, including but not limited to the extent that they require specification of: the
11 date it was authored, sent, and/or received; the identity of the author of the document; the identity
12 of any recipient of the document; and the identity of the custodian of the document.

13 12. Google objects to the instructions to “identify,” “describe,” or specify the “identity”
14 in the context of a communication on the grounds that the instructions are overly broad, unduly
15 burdensome, and vague, including but not limited to the extent that they require specification of: the
16 date it was authored, sent, and/or received; the identity of the author of the document; the identity
17 of any recipient of the document; and the identity of the custodian of the document. Google further
18 objects to the instructions regarding “identify,” “describe,” or “identity” in the context of a
19 communication to the extent that they suggest Google is required to search and produce
20 electronically stored information (ESI) before Sonos has shown good cause for ESI discovery, and
21 the parties have agreed on a procedure for doing so in accordance with the Court’s Standing Order.

22 13. Google objects to the instructions to “identify,” “describe,” or specify the “identity”
23 in the context of a thing on the grounds that the instructions are overly broad, unduly burdensome,
24 and vague, including but not limited to the extent that they require specification of: its physical
25 particulars; the day on which it was made; the identity of the persons who made it; the identity of
26 the persons who asked that it be made; its present condition; and its present location.

27 14. Google objects to the instructions to “state all facts” on the grounds that the
28 instructions are is overly broad, unduly burdensome, and vague, including but not limited to the

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1 extent that it requires specification of: the identification of any person or entity having knowledge
2 of any such fact, including the last known address and phone number and the identity of any
3 document, communication, or thing that refers, relates, or evidences any such fact.

4 15. Google objects to each interrogatory to the extent it seeks information protected by
5 the attorney-client privilege or the work product doctrine or that is otherwise privileged or protected
6 from discovery.

7 16. Google objects to each interrogatory to the extent that it seeks information that is not
8 relevant to any claim or defense of any party or to the subject matter of this action, and is thus not
9 proportional to the needs of the case.

10 17. Google objects to each interrogatory to the extent it is compound and contains
11 multiple subparts.

12 18. Google objects to each interrogatory to the extent it is overbroad, unduly
13 burdensome, vague, and/or ambiguous.

14 19. Google objects to each interrogatory to the extent it seeks information that does not
15 already exist or that is not in Google’s possession, custody, or control.

16 20. Google objects to each interrogatory to the extent it requires Google to provide
17 information beyond what is available to Google at present from a reasonable search of its own files
18 likely to contain relevant or responsive documents and from a reasonable inquiry of its present
19 employees.

20 21. Google objects to each interrogatory to the extent it seeks confidential or proprietary
21 information, including without limitation, confidential business information, proprietary and/or
22 competitively sensitive information, or trade secrets. Subject to its other General Objections, and
23 to any specific objections set forth below, Google will only provide relevant information in a manner
24 consistent with a Protective Order entered by the Court in this matter.

25 22. Google objects to each interrogatory to the extent it is unlimited in time or otherwise
26 not limited to a timeframe relevant to this litigation, and is therefore burdensome, oppressive, overly
27 broad, and not proportional to the needs of the case.

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1 23. Google objects to each interrogatory to the extent it seeks a legal conclusion or expert
2 testimony.

3 24. Google objects to each interrogatory to the extent it seeks information that is publicly
4 available and therefore as accessible to Sonos as to Google.

5 25. Google objects to each interrogatory to the extent that it is premature. Discovery is
6 ongoing, and Google has not yet completed its investigation of the matters at issue in this action.
7 Google reserves the right to modify, supplement, change or amend its responses after the Court has
8 issued its claim construction order, and once Google has conducted the necessary discovery and
9 investigation.

10 26. Google’s responses are not to be construed as an admission that any of the requested
11 information exists, that any information is admissible, relevant or proportional to the needs of the
12 case, or that any contention or assumption contained in the interrogatories, whether implicit or
13 explicit, is correct.

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1 static groups, which may be created in the Google Home App before media starts playing; dynamic
 2 groups are formed when media is playing and an additional speaker is added to the playback
 3 group. Dynamic groups can also be further modified during playback.

4 **INTERROGATORY NO. 14:**

5 For each Accused Cast-Enabled App, describe in detail how the given Accused Cast-Enabled
 6 App (e.g., YouTube Music, YouTube, Google Play Music, Google Podcasts, Spotify) running on a
 7 computing device (e.g., an Accused Pixel Device, an Accused Cast-Enabled Display, or a third-
 8 party mobile phone or tablet), independently or working with other software on the computing
 9 device, enables a user to “cast,”³ or otherwise move or transfer media,⁴ to an Accused Cast-Enabled
 10 Media Player including, but not limited to, (i) describing in detail any information that is exchanged
 11 between the computing device, the Accused Cast-Enabled Media Player, and/or any Accused
 12 Google Server to facilitate the aforementioned functionality and how such exchange takes place, (ii)
 13 describing in detail any creation, existence, modification, or deletion of any “queue”⁵ of one or more
 14 media items to facilitate the aforementioned functionality and how such creation, existence,
 15 modification, or deletion takes place, and (iii) identifying by filename and method/function name
 16 the specific source code related to the functionality described in (i)-(ii).

17 **OBJECTIONS:** Google incorporates by reference all of its General Objections as if fully
 18 set forth herein. Google objects to the characterization of this interrogatory as a single interrogatory
 19 given that it contains multiple discrete subparts under Fed. R. Civ. P. 33(a)(1). Google objects to
 20 this interrogatory on the grounds that it is vague, ambiguous, unclear as to information sought, and
 21 lacking sufficient particularity to permit Google to reasonably prepare a response with respect to the
 22 undefined terms “running on a computing device,” “independently or working with other software
 23 on the computing device,” “information that is exchanged,” “facilitate,” “how such exchange takes
 24 place,” “creation, existence, modification, or deletion,” “how such creation, existence, modification,
 25

26

 27 ³ See, e.g., <https://support.google.com/googlenest/answer/7181830>.

28 ⁴ See, e.g., <https://support.google.com/chromecast/answer/9563059?co=GENIE.Platform%3DAndroid&hl=en>

⁵ See, e.g., https://developers.google.com/cast/docs/ios_sender/queueing.

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1 or deletion takes place,” “filename” and “method/function name.” Google further objects to this
2 interrogatory to the extent that it assumes the existence of hypothetical facts that are incorrect or
3 unknown to Google.

4 Google also objects to this interrogatory as overbroad, burdensome, and not proportional to
5 the needs of the case, including to the extent it seeks information that is not relevant to any claim or
6 defense of any party or to the subject matter of this action, including to the extent that it seeks
7 information about “third-party servers” and non-accused instrumentalities or technology. Google
8 further objects to this interrogatory as overbroad and unduly burdensome to the extent that it seeks
9 information that is publicly available, not uniquely within the control of Google, or is equally
10 available to Sonos. Google additionally objects to this interrogatory to the extent it seeks
11 communications and information protected from disclosure by the attorney-client privilege and/or
12 attorney work product doctrine. Google further objects to this interrogatory to the extent it seeks
13 confidential and/or proprietary business information. Google also objects to this interrogatory to
14 the extent that it premature seeks expert discovery, opinion, and/or testimony. Google additionally
15 objects to this interrogatory to the extent it seeks information that is not reasonably accessible or
16 that is not within Google’s possession, custody, or control.

17 **RESPONSE:**

18 Subject to and without waiving the foregoing General and Specific objections, Google
19 responds, as follows:

20 Pursuant to Rule 33(d) of the Federal Rules of Civil Procedure, Google further refers Sonos
21 to the source code that Google has made available and the following documents containing
22 information responsive to this interrogatory: GOOG-SONOSWDTX-00005033-53611.

23 **SUPPLEMENTAL RESPONSE:** Google maintains the General and Specific objections
24 set forth above. Google further objects to this interrogatory on the grounds that it is vague and
25 ambiguous to the extent it seeks information regarding products not specifically identified by make
26 or model number in Sonos’s infringement contentions. For example, Google objects to Accused
27 Cast-Enabled App to the extent it seeks information regarding products not specifically identified
28 in Sonos’s infringement contentions. Google also objects to this interrogatory to the extent it seeks

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1 to encompass Spotify, which is a separate, third-party application. Subject to and without waiving
 2 the foregoing General and Specific objections, Google responds, as follows:

3 Google refers Sonos to the source code that Google has made available, which is the best
 4 evidence of how the devices operate with respect to the operation of the accused functionalities.
 5 Pursuant to Rule 33(d) of the Federal Rules of Civil Procedure, Google further refers Sonos to the
 6 following documents created during product development which may contain information response
 7 to this interrogatory: GOOG-SONOSWDTX-00041650, GOOG-SONOSWDTX-00039521,
 8 GOOG-SONOSWDTX-00041722, GOOG-SONOSWDTX-00040397, GOOG-SONOSWDTX-
 9 00042266, GOOG-SONOSWDTX-00042272, GOOG-SONOSWDTX-00042282, GOOG-
 10 SONOSWDTX-00042365, GOOG-SONOSWDTX-00042378, GOOG-SONOSWDTX-00042380,
 11 GOOG-SONOSWDTX-00042385, GOOG-SONOSWDTX-00042397, GOOG-SONOSWDTX-
 12 00042402, GOOG-SONOSWDTX-00042404, GOOG-SONOSWDTX-00042413, GOOG-
 13 SONOSWDTX-00042754, GOOG-SONOSWDTX-00042954, GOOG-SONOSWDTX-00043052,
 14 GOOG-SONOSWDTX-00043318, GOOG-SONOSWDTX-00043323, GOOG-SONOSWDTX-
 15 00043799-803, GOOG-SONOSWDTX-00043820, GOOG-SONOSWDTX-00051820, GOOG-
 16 SONOSWDTX-00051848, GOOG-SONOSWDTX-00051918, GOOG-SONOSWDTX-00051924,
 17 GOOG-SONOSWDTX-00051927, GOOG-SONOSWDTX-00052944-71, GOOG-
 18 SONOSWDTX-00051608, GOOG-SONOSWDTX-00051943, GOOG-SONOSWDTX-00037978,
 19 GOOG-SONOSWDTX-00051947, GOOG-SONOSWDTX-00037634, GOOG-SONOSWDTX-
 20 00053379, GOOG-SONOSWDTX-00036998, GOOG-SONOSWDTX-00037178, GOOG-
 21 SONOSWDTX-00037042, GOOG-SONOSWDTX-00037081, GOOG-SONOSWDTX-00037220,
 22 GOOG-SONOSWDTX-00040331-83, GOOG-SONOSWDTX-00043467, GOOG-
 23 SONOSWDTX-00043471, GOOG-SONOSWDTX-00043550, GOOG-SONOSWDTX-00037146,
 24 GOOG-SONOSWDTX-00043548, GOOG-SONOSWDTX-00043676, GOOG-
 25 SONOSWDTX-00037178; *see also* GOOG-SONOSWDTX-00005033-8471, GOOG-
 26 SONOSWDTX-00022175-371, GOOG-SONOSWDTX-00036346-53611.

27 **SECOND SUPPLEMENTAL RESPONSE:** Google maintains the General and Specific
 28 objections set forth above. Google further objects to this interrogatory on the grounds that it is

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1 vague and ambiguous to the extent it seeks information regarding products not specifically identified
2 by make or model number in Sonos’s infringement contentions. For example, Google objects to
3 Accused Cast-Enabled App to the extent it seeks information regarding products not specifically
4 identified in Sonos’s infringement contentions or which have now been dropped from the case (e.g.,
5 Podcast). Google also objects to this interrogatory to the extent it seeks to encompass Spotify, which
6 is a separate, third-party application. Google further objects to this Interrogatory as vague and
7 ambiguous, for example as to its use of the term “queue” which is subject to claim
8 construction. Subject to and without waiving the foregoing General and Specific objections,
9 Google responds, as follows:

10 [REDACTED]
11 [REDACTED] GOOG-SONOSWDTX-00039484. [REDACTED]
12 [REDACTED] The following
13 diagram illustrates this process:

14 [REDACTED]
15
16
17
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22 [REDACTED]
23 [REDACTED]
24 [REDACTED]
25 [REDACTED]
26 [REDACTED]
27 [REDACTED]
28 [REDACTED]

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1 [REDACTED]
2 [REDACTED]
3 [REDACTED]
4 [REDACTED]
5 [REDACTED] *See also* Google’s Response
6 to Interrogatory No. 15.

7 [REDACTED] GOOG-
8 SONOSWDTX-00043467. [REDACTED]
9 [REDACTED]
10 [REDACTED] GET “itemWindow” request [REDACTED]
11 [REDACTED] *Id.*

12 **INTERROGATORY NO. 15:**

13 For each of the YouTube, YouTube Music, YouTube TV, Google Play Music, Google
14 Podcasts, and Spotify media services, describe in detail how an Accused Google Product (e.g., an
15 Accused Cast-Enabled Media Player or Accused Pixel Device) receives and then plays back a
16 sequence of media items (e.g., songs, podcast episodes, etc.) in connection with a given one of the
17 aforementioned media services including, but not limited to, (i) describing in detail any
18 communications between the Accused Google Product and any web server (e.g., Accused Google
19 Server or third-party server) and how such communications take place, (ii) describing in detail how
20 any Accused Google Server generates, maintains, and/or updates a set of one or more media-item
21 “recommendations”⁶ that are sent to the Accused Google Product and how those
22 “recommendations” are sent to the Accused Google Product, and (iii) describing in detail how any

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27 ⁶ See, e.g., <https://www.youtube.com/howyoutubeworks/product-features/recommendations/>;
28 <https://support.google.com/youtubemusic/answer/6313542?hl=en>;
<https://support.google.com/websearch/answer/10017274?hl=en&co=GENIE.Platform%3DAndroid%26zippy%3D>.

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1 Accused Google Server facilitates Google’s “Autoplay feature”⁷ for playback at the Accused
 2 Google Product and how the “Autoplay feature” is utilized at the Accused Google Product.

3 **OBJECTIONS:** Google incorporates by reference all of its General Objections as if fully set forth
 4 herein. Google objects to the characterization of this interrogatory as a single interrogatory given
 5 that it contains multiple discrete subparts under Fed. R. Civ. P. 33(a)(1). Google objects to this
 6 interrogatory on the grounds that it is vague, ambiguous, unclear as to information sought, and
 7 lacking sufficient particularity to permit Google to reasonably prepare a response with respect to the
 8 undefined terms “receives and then plays back a sequence of media items,” “in connection with a
 9 given one of the aforementioned media services,” “communications between the Accused Google
 10 Product and any web server,” “how such communications take place,” “generates, maintains and/or
 11 updates,” “how those ‘recommendations’ are sent to the Accused Google Product,” “how any
 12 Accused Google Server facilitates Google’s ‘Autoplay feature’ for playback at the Accused
 13 Product,” and “how the ‘Autoplay feature’ is utilized at the Accused Google Product.” Google
 14 further objects to this interrogatory to the extent that it assumes the existence of hypothetical facts
 15 that are incorrect or unknown to Google.

16 Google also objects to this interrogatory as overbroad, burdensome, and not proportional to
 17 the needs of the case, including to the extent it seeks information that is not relevant to any claim or
 18 defense of any party or to the subject matter of this action, including to the extent that it seeks
 19 information regarding non-accused instrumentalities or technology such as “Spotify media services”
 20 and “third-party server[s].” Google further objects to this interrogatory as overbroad and unduly
 21 burdensome to the extent that it seeks information that is publicly available, not uniquely within the
 22 control of Google, or is equally available to Sonos. Google additionally objects to this interrogatory
 23 to the extent it seeks communications and information protected from disclosure by the attorney-
 24 client privilege and/or attorney work product doctrine. Google further objects to this interrogatory
 25 to the extent it seeks confidential and/or proprietary business information. Google also objects to
 26

27 ⁷ See, e.g.,
 28 <https://support.google.com/youtube/answer/6327615?hl=en&co=GENIE.Platform%3DAndroid>;
<https://support.google.com/websearch/answer/10017274?hl=en&co=GENIE.Platform%3DAndroid#zippy=>.

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1 this interrogatory to the extent that it premature seeks expert discovery, opinion, and/or testimony.
2 Google additionally objects to this interrogatory to the extent it seeks information that is not
3 reasonably accessible or that is not within Google’s possession, custody, or control. Google further
4 objects to this interrogatory to the extent it seeks information that is unnecessarily cumulative or
5 duplicative of information sought by other discovery, including Request for Production No. 20.

6 **RESPONSE:**

7 Subject to and without waiving the foregoing General and Specific objections, Google
8 responds, as follows:

9 Pursuant to Rule 33(d) of the Federal Rules of Civil Procedure, Google further refers Sonos
10 to the source code that Google has made available and the following documents containing
11 information responsive to this interrogatory: GOOG-SONOSWDTX-00005033-53611.

12 **SUPPLEMENTAL RESPONSE:** Google maintains the General and Specific objections
13 set forth above. Google further objects to this interrogatory on the grounds that it is vague and
14 ambiguous to the extent it seeks information regarding products not specifically identified by make
15 or model number in Sonos’s infringement contentions. Google also objects to this interrogatory to
16 the extent it seeks to encompass Spotify, which is a separate, third-party application. Subject to and
17 without waiving the foregoing General and Specific objections, Google responds, as follows:

18 Google refers Sonos to the source code that Google has made available, which is the best
19 evidence of how the devices operate with respect to the operation of the accused functionalities.
20 Pursuant to Rule 33(d) of the Federal Rules of Civil Procedure, Google further refers Sonos to the
21 following documents created during product development which may contain information response
22 to this interrogatory: GOOG-SONOSWDTX-00041650, GOOG-SONOSWDTX-00039521,
23 GOOG-SONOSWDTX-00041722, GOOG-SONOSWDTX-00040397, GOOG-SONOSWDTX-
24 00042266, GOOG-SONOSWDTX-00042272, GOOG-SONOSWDTX-00042282, GOOG-
25 SONOSWDTX-00042365, GOOG-SONOSWDTX-00042378, GOOG-SONOSWDTX-00042380,
26 GOOG-SONOSWDTX-00042385, GOOG-SONOSWDTX-00042397, GOOG-SONOSWDTX-
27 00042402, GOOG-SONOSWDTX-00042404, GOOG-SONOSWDTX-00042413, GOOG-

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1 SONOSWDTX-00042754, GOOG-SONOSWDTX-00042954, GOOG-SONOSWDTX-00043052,
2 GOOG-SONOSWDTX-00043318, GOOG-SONOSWDTX-00043323, GOOG-SONOSWDTX-
3 00043799-803, GOOG-SONOSWDTX-00043820, GOOG-SONOSWDTX-00051820, GOOG-
4 SONOSWDTX-00051848, GOOG-SONOSWDTX-00051918, GOOG-SONOSWDTX-00051924,
5 GOOG-SONOSWDTX-00051927, GOOG-SONOSWDTX-00052944-71, GOOG-
6 SONOSWDTX-00051608, GOOG-SONOSWDTX-00051943, GOOG-SONOSWDTX-00037978,
7 GOOG-SONOSWDTX-00051947, GOOG-SONOSWDTX-00037634, GOOG-SONOSWDTX-
8 00053379, GOOG-SONOSWDTX-00036998, GOOG-SONOSWDTX-00037178, GOOG-
9 SONOSWDTX-00037042, GOOG-SONOSWDTX-00037081, GOOG-SONOSWDTX-00037220,
10 GOOG-SONOSWDTX-00040331-83, GOOG-SONOSWDTX-00043467, GOOG-
11 SONOSWDTX-00043471, GOOG-SONOSWDTX-00043550, GOOG-SONOSWDTX-00037146,
12 GOOG-SONOSWDTX-00043548, GOOG-SONOSWDTX-00043676, GOOG-
13 SONOSWDTX-00037178; *see also* GOOG-SONOSWDTX-00005033-8471, GOOG-
14 SONOSWDTX-00022175-371, GOOG-SONOSWDTX-00036346-53611.

15 **SECOND SUPPLEMENTAL RESPONSE:**

16 Google maintains the General and Specific objections set forth above. Google further
17 objects to this interrogatory on the grounds that it is vague, ambiguous, and overbroad to the extent
18 it seeks information regarding products not specifically identified by make or model number in
19 Sonos’s infringement contentions, or that have now been dropped by Sonos (e.g., Podcast). Google
20 also objects to this interrogatory to the extent it seeks to encompass Spotify, which is a separate,
21 third-party application. Subject to and without waiving the foregoing General and Specific
22 objections, Google responds, as follows:

23 Google fully incorporates herein by reference its responses to Interrogatory No. 14. Google
24 further responds that casting operations involving the identified “autoplay” feature are generally
25 described at least in GOOG-SONOSWDTX-00043467, GOOG-SONOSWDTX-00041491 and
26 [REDACTED]

27 The illustration below provides a simplified view of the general architecture that is employed
28 by [REDACTED]

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11 GOOG-SONOSWDTX-00041650. [REDACTED]

12 [REDACTED]

13 [REDACTED]

14 [REDACTED]

15 [REDACTED] ([REDACTED]

16 [REDACTED]

17 [REDACTED]

18 [REDACTED] *Id.* at 8. [REDACTED]

19 [REDACTED]

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Id.

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videoIds

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videoId

Id.

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videoId

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10 As can be seen, the field “videoId” [REDACTED] videoId

11 [REDACTED]

12 [REDACTED]

13 An example of a “method” [REDACTED]

14 [REDACTED]

15 [REDACTED]

16 [REDACTED]

17 [REDACTED] videoId [REDACTED]

18 [REDACTED]

19 [REDACTED]

20 [REDACTED]

21 [REDACTED]

22 [REDACTED]

23 [REDACTED]

24 [REDACTED]

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1 DATED: February 4, 2022

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that all counsel of record who have consented to electronic service are being served with a copy of this document via email on February 4, 2022.

/s/ Nima Hefazi
Nima Hefazi